

22  
TWENTY THOUSAND  
DOLLARS FOR A BUG.

The Orange Foe's Destroyer  
Came High, but Was Worth  
the Price.

A Queer Australian Insect That Saved  
a California Industry from Total  
Extinction.

ITS POWERS LEARNED BY ACCIDENT.

No Danger of the Vedalia's Disappearing,  
for a Female Becomes Grandmother  
to Seventy-five Billion in  
Six Months.

Twenty thousand dollars for a bug! A  
big price truly; but, though it came high,  
the government had to have it. Such a  
good-sized insect, one might think; but  
this was only a little beetle about one-  
third of an inch in length. Nevertheless,  
it was big enough to save many millions  
of dollars' worth of property.

One of the interesting points about this  
bug is that it is a cannibal. It will de-  
vour its own kind on slight provocation.  
At the Department of Agriculture, in  
Washington, there is an incubator house,  
wherein insects of various species are  
hatched and reared. Some of the \$20,000  
beetles were kept there a while ago in a  
glass box, but, after gobbling everything  
in sight, they drew lots as to which of them  
should die for the benefit of the others.

Said George Jack to Gussling Jimmy,  
"There's nothing left, as you must eat."  
Consequently, in a remarkably short time,  
only one large and fat specimen remained.  
It was too expensive, and the plan of breed-  
ing the vedalia under such conditions was  
abandoned.

Vedalia is the name which the scientists  
have given to this beetle, which has saved  
the orange industry of California. Not  
long ago that branch of agricultural indus-  
try on the Pacific coast was threatened  
with total destruction by an insect known  
as the "white scale" or "dusted scale." It  
lived on the orange trees, sticking its beak  
into the bark and sucking the vital sap.  
After locating itself satisfactorily, it re-  
mained stationary, being covered up by a  
whitish substance which exuded from its  
body.

WHOLE ORCHARDS DESTROYED.  
So rapidly did it propagate its species  
that an infested tree soon became literally  
covered with the unpleasant-looking scales.  
Whole orchards were destroyed by them,  
and the pest at last became so serious that  
growers began to abandon orange culture  
as hopelessly unprofitable. They might  
have been able to exterminate the insects  
by the use of insecticides but for the fact  
that they made themselves at home on  
plants of other kinds. They preyed on  
the lemon trees, trees of other species, and  
even on waxes. Thus they were always  
at hand and ready to attack the oranges.

The origin of the scale insect was for  
some time a mystery. It had been im-  
ported from somewhere—that much was  
certain. Aencia trees had been the first  
to suffer from its depredations. Now, the  
scale had been fetched from Australia.  
It was a natural inference that the pest  
might have been brought over with the  
acacias. Accordingly, an inquiry was ad-  
dressed to the bug sharps in Australia.  
They replied that the orange orchards in  
their country were infested by the white  
scale, but that the insects did not do any  
serious mischief over there.

This disclosure was of great value. If  
the insect was present in the orange groves  
of Australia, and yet did not do much dam-  
age, it must be because it was kept in  
check by some natural means. Most prob-  
ably there was some parasite that preyed  
on it and kept down its numbers. As to  
that point, the bug sharps abroad could  
give no information; that subject had not  
been investigated. Accordingly, it was  
deemed best to send an expert to Australia  
to look the matter up. A field agent of the  
Bureau of Entomology named Koebel was  
selected for the purpose. The Department  
of Agriculture had no money that could be  
applied to defraying his expenses, and so  
the Department of State paid them out of  
a special fund.

BEGAN TO STUDY THE BUGS.  
On reaching Australia, Mr. Koebel went  
right at the business of studying the scale  
insects at home. He associated with them  
daily, studying their occupations and  
amusements, and more particularly keep-  
ing an eye out for enemies that might at-  
tack them. Of these latter he found that  
they had quite a number. Most conspicu-  
ous among them seemed to be a small  
species of fly which fed on the scale bugs.  
This sort of fly was not known in Cali-  
fornia.

Bureka! The agent had good reason to  
think that the problem was solved. He  
caught a lot of the flies and introduced  
them, with the intention to send them to  
the United States. Incidentally, he se-  
cured for the same purpose specimens of  
other foes of the scales, including a few  
pairs of lady bird beetles that somewhat  
resembled the size and appearance  
of the familiar "lady bug" which are ac-  
customed to "fly away home" when told to  
do so. These lady birds were labelled  
"ladybugs." A shorter name for them  
was vedalia.

To transport the insects alive to the  
United States, a distance of 6,000 miles by  
water, was a serious problem. It was ac-  
complished by confining them in wooden  
boxes, which were kept on ice during the  
entire voyage. To make sure of success,  
consignments of them were forwarded by  
every steamer during four months. Natu-  
rally, many of them died, but enough ar-  
rived in good condition to serve the  
purpose in view.

LAD PLANS FOR THE WINGED VISITORS.  
Meanwhile, in the neighborhood of Los  
Angeles, Cal., preparations had been made  
for the reception and hospitable entertain-  
ment of the insects from abroad. Orange  
trees were enclosed under tents of gauze,  
and in side of these the insects were lib-  
erated. Trees badly infested by the scales  
were selected, the object being to see  
whether the imported bugs would attack  
them or not.

This was the best method, also, of mul-  
tiplying the imported insects, the condi-  
tions being most favorable for their propa-  
gation. It amounted to the establishment  
of hatcheries for breeding them in inde-  
nite numbers. Alas! the fly already de-  
scribed was a disappointment. It was  
ready enough to feed on the scales, but it  
bred too slowly to be of much service. By  
an accident, one day nearly all of the ve-  
dalia beetles escaped from the tent in  
which they were confined and promptly  
"flew away home"—that is, to the orange  
trees. Trees badly infested by the scales  
were selected, the object being to see  
whether the imported bugs would attack  
them or not.

Meanwhile the business of breeding the  
different species of insects went on, though  
not very hopefully. The bug that was  
wanted was surely lacking. But strange  
reports began to come in. Orange grow-  
ers in the vicinity sent word that some-  
thing was attacking the scales on their  
trees; the latter were being wiped out ap-  
parently by little bugs that looked like  
lady bugs.

TRIUMPH OF THE LADY BIRDS.  
Investigation revealed the fact that the  
escaped lady birds had multiplied enor-  
mously within a few weeks and were gob-  
bling the scale insects at an astonishing  
rate. In a short time they actually  
cleaned the pest out of a number of or-  
chards, so that there was hardly a scale  
to be seen. When it is considered that  
as was subsequently ascertained, one fe-  
male lady bird in good state of ding be-



THIS IS THE TRAMP COWBIRD.

comes grandmother to seventy-five billion  
of her kind in six months, the matter is  
better understood.  
Thus, by what might almost be termed an  
accident, the problem was solved. From  
that time on the attention of the experts  
was devoted exclusively to the breeding of  
the vedalia. They put small consignments  
of the beetles in wooden boxes and mailed  
them to orange groves all over the State,  
with instructions simply to put them on the  
trees. They could be counted on to do the  
rest. The results obtained were prompt  
and wonderful. One orchard of 3,000  
trees, badly infested, was cleaned of the  
scales in sixty days. Growers secured the  
efforts of the government in the dis-  
tribution of the beetles. One man re-  
ceived 115 of them in March, and by July  
31 he had given out to other farmers 120,  
000 of the beneficent bugs. The orange  
industry of California was saved.

Another agent of the Department of Ag-  
riculture, likewise at the expense of the  
Department of State, was sent to Aus-  
tralia early in the proceedings for the pur-  
pose of securing more lady birds; but there  
was no necessity. For some reason the  
vedalia found in California conditions  
much more favorable for its survival and  
propagation than in Australia. The cli-  
mate perhaps was more suitable, and the  
scales were plentiful and juicy. May be  
it had enemies in Australia which did not  
exist in California.

POISONOUS BEES THRIVE HERE.  
This sort of thing has happened with re-  
gard to a good many different species of  
insects that have come to this country from  
abroad. That is why our worst bug pests  
to-day are imported ones. It is a curious  
fact that the Australian authorities re-  
cently sent to California for consignments  
of vedalia beetles, because the latter have  
become scarce over there and consequently  
the white scale has grown worse. Now  
and then the scale insect bobs up in one  
locality or another in California and begins  
to do some damage; but as quickly as it  
does so the lady birds appear and wipe it  
out.

It has been stated that these beetles are  
cannibals. After treating the scales, they  
turned upon each other and ate one another up,  
leaving only a few survivors. These few,  
however, suffice to keep the scales down.  
It is estimated that one lady bird in its  
short lifetime destroys 100 scale insects.  
Twenty thousand dollars is a good deal  
to pay for a bug, but the vedalia was cheap  
at the price. The Department of Agri-  
culture would be glad to pay more than  
that to-day for an insect that would wipe  
out the cotton boll weevil, which is threat-  
ening the cotton growing industry of the  
South.

TESTING CHRONOMETERS.  
A New York Nautical Shop Upon Which  
Duties of the Greatest Importance  
Constantly Devolve.

There is a queer shop down on Water  
street, with a very nautical air, which has  
reason to feel its own importance, for  
here the chronometers of nearly all the  
big ships which sail from New York are  
tested.

This is the abiding place of a firm of  
nautical instrument makers, and nowhere  
in New York is there an establishment bet-  
ter known to ship captains, great and  
small.

Several rows of shelves behind the  
counters are graced with a collection of  
objects which at first glance look like  
small gas meters, but on closer inspection  
prove to be chronometers.

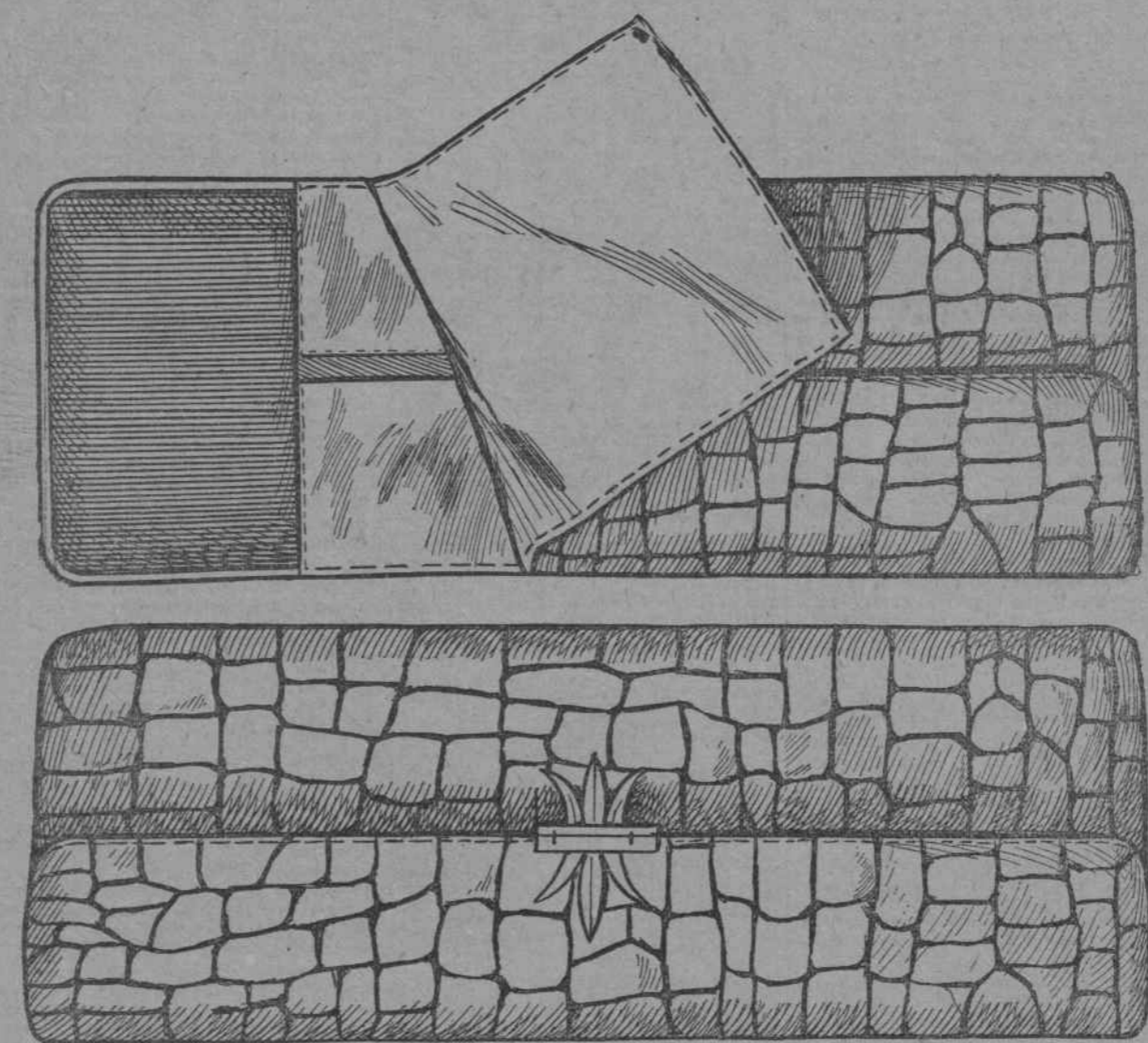
"Oh, yes!" said the clerk, when asked  
if they were from big vessels. "That be-  
longs to the Campania; the next one is  
from the Fula," and so it went. Vessels  
from almost every port of prominence un-  
der the sun were represented, for  
whether it be the ocean liner or trading  
schooner, a craft must of necessity have a  
chronometer.

The object of having the chronometer  
tested is to find out just how much it  
varies from Greenwich. Of the hundreds  
that travel on the ocean craft, probably  
not 1 per cent are absolutely correct. So  
the captain, when he takes his observa-  
tions, must know just how widely his  
chronometer varies from Greenwich. Upon  
this point the test at the nautical instu-  
ment maker's shop posts him. Just the  
slightest of errors would render the ob-  
servations and reckoning of an entire voy-  
age inaccurate.

NUTMEGS ARE POISONOUS.

Here is a Singular Case of a Girl Who  
Died After Eating Two Nutmegs  
Weighing Eleven Grains.

The tendency of the times is to find hor-  
rible dangers in everything we eat and  
drink. One of the latest discoveries in  
this line establishes the fact that the wood-  
en nutmeg of Connecticut is preferable to  
the natural product. The Berlin Echo  
says that about 6 per cent of the genuine  
article consists of a fatty, poisonous oil.  
One grain of nutmeg may produce death.  
A German girl lately ate two of the nuts,  
weighing eleven grains. Shortly after  
eating them, she showed symptoms of  
poisoning—dizziness, cramps in the arms  
and legs, and at last, after having swal-  
lowed a large quantity of milk, she was



BLACKJACK POCKETBOOK FOR THE NEW WOMAN.

seized with vomiting. Then she fell quiet-  
ly asleep, never to wake again.

A COCKROACH TRAP.  
Here is an Ingenious Device Which Attracts  
the Insect by Limburger Cheese  
and Drowns it in Beer.

A Saxon has lately invented a cockroach  
trap warranted to kill. This novelty is  
made of tin and shaped like a bowl. From  
the rim of this bowl eight narrow bridges  
lead to a piece of Limburger cheese or  
similarly odorous bait temptingly displayed  
at the conjunction of deceptive parts. The  
little bridges are pivoted at the centre. As  
soon as a roach enters on one it feels the  
ground sink beneath its feet and is pre-  
cipitated below. It falls into about "two  
fingers" of beer, if the trapper follows the  
instructions of the inventor.

A QUEER FIND.  
Twelve Prehistoric Skulls Dug Up in  
France, Each Marked With the Let-  
ter T Above the Forehead.

Twelve prehistoric skulls, each marked  
with a curious cicatrice in the form of a  
letter T in the same place just above the  
forehead, was the curious find that some  
excavators brought to light recently while  
digging at Epone, France, in the province  
of Seine-et-Oise, not far distant from  
Paris. Three of the skulls were those of  
men and nine of women.

The remains found in this neolithic sepul-  
chre were submitted to the examination  
of M. Perrier and Manouvrier, of the  
Paris Anthropological Society. They  
stated, after a careful examination, that  
the scars had evidently been caused by re-  
peated burnings upon the skin of the  
scalp during life, which had acted upon  
the outer walls of the skull. These cicat-  
rices were all in exactly the same spot  
and placed in the same way, the end of  
the stem of the T commencing always a  
little above the anterior curve of the  
frontal bone.

This singular coincidence leads the scien-  
tists to think that these were not the re-  
sult of chance, but of some curious  
rite or custom in vogue in the Silurian age,  
to which period they agree the skulls be-  
long. This opinion is strengthened by the  
fact that among the prehistoric skulls pre-  
served in the Ecole de Medicine there are  
three of the Silurian type which were  
marked in precisely the same way. As  
the three skulls in the School of Medicine

"REAL BLACKJACKS"  
FOR THE NEW WOMAN.

A Pocketbook That Secretes a  
Powerful Weapon of  
Defence.

Just the Thing to Protect Herself  
from Highwaymen and Street  
"Mashers."

CAN STRIKE A KNOCKOUT BLOW.

Two Ounces of Lead Swung by a Whale-  
bone Handle and Ready  
for Instant  
Use.

At last the new woman is provided with  
a weapon of defence, by the use of which  
she may defend herself from highwaymen,  
"mashers," the brute who annoys her in a  
street car, and the other types of people  
who contribute so much to feminine mis-  
ery. Every woman may now carry a  
"blackjack," or what the police call a  
"billy."

A picture of what the manufacturer is  
pleased to call "the woman's new defend-  
er" is given on this page. The illustra-  
tions are somewhat smaller than the origi-  
nals. One of the pictures shows what is,  
to all appearances, nothing more than one  
of the long alligator-skin pocketbooks now  
so much in vogue. The second picture, in  
which a portion of the interior of the in-  
nocent looking purse is shown, reveals the  
fact that there is snugly fitted into the  
book a compact piece of lead, weighing  
over two ounces.

Running lengthwise through the pocket-  
book is a stout piece of whalebone, which  
at one end is securely fastened to the piece  
of lead and is also fastened in the stitch-  
ing at the other end.

In many respects this novel pocketbook  
is far superior as a weapon of defence to  
the ordinary "billy" carried by policemen  
and others. In the first place, it is not  
concealed. It is always in hand and ready  
for immediate use. Those two ounces of  
lead, with the spring imparted by the stout  
whalebone added to the natural strength of  
the woman, would undoubtedly stun even a  
prize fighter. An ordinary bully might get  
a knockout blow if the weapon were prop-  
erly directed. At any rate, instead of get-  
ting a mere slap in the face, which would  
be harmless enough, he would be so dazed



THE LONGEST MUSTACHE ON RECORD.

A NINE-FOOT MUSTACHE.

James H. Brown, of the Fort Hall Indian  
Agency in Idaho, is the Possessor and  
Has No Rival in the World.

James H. Brown, issue clerk at the Fort  
Hall Indian Agency, Ross Fork, Bingham  
County, Idaho, has the longest mustache  
of any man living. It measures nine feet  
from tip to tip, four and a half feet each  
way from the centre of the lip. This  
mustache is Mr. Brown's greatest joy and  
pride. It is most carefully kept, and  
would attract marked attention anywhere.  
The Indians look upon this enormously  
long mustache with awe and reverence,  
believing Mr. Brown to have been ex-  
ceptionally blessed by God.

Mr. Brown is by birth a Virginian. He  
was born in Loudoun County, eleven miles  
west of Leesburg, near what is known now  
as Round Hill. His father moved from  
Loudoun County to Barbours County, then  
in Virginia, but now in West Virginia, in  
October, 1857.

Mr. Brown's occupation has always been  
that of a farmer, with the exception of a  
period of eighteen years, which he de-  
voted to the lumber business, and the time  
he has been giving to Uncle Sam. Four-  
teen months ago Mr. Brown was appointed  
issue clerk at the Fort Hall Indian Agency,  
which position he is still filling.

The fame of Mr. Brown's elongated mus-  
tache is by no means confined to the wilds  
of Idaho. It is known throughout the Vir-  
ginias and the South generally. The news-  
papers of the places of the towns visited  
by Mr. Brown have joyfully extolled the  
wonderful length of his mustache, but  
this is the first time that a picture of the  
proud owner of such a mustache in the  
world has ever been printed.

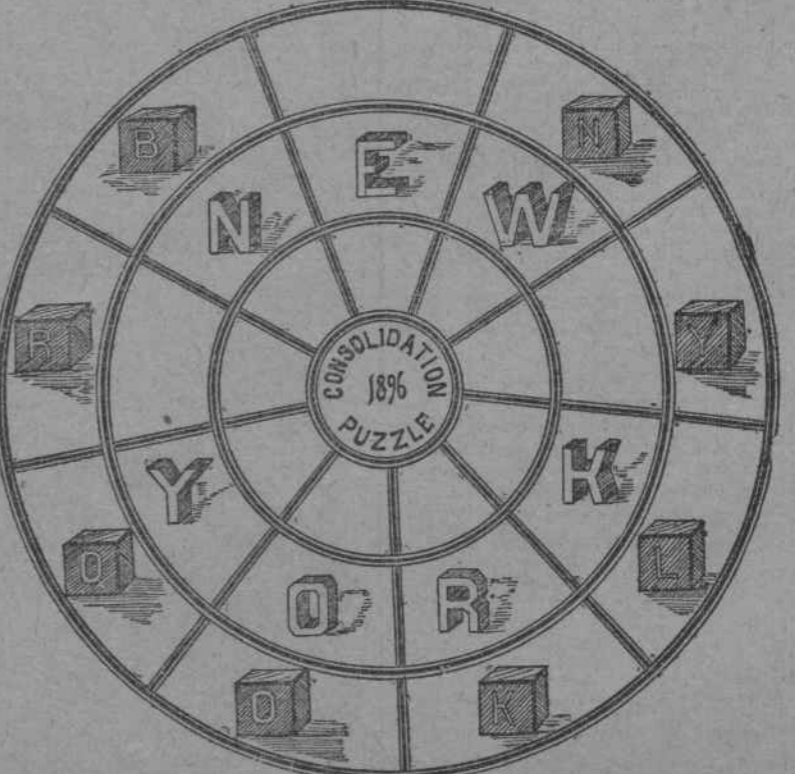
USE FOR CHEWING GUM.  
How a Five Dollar Gold Piece Was Rescued  
by an Intelligent Conductor of a  
Broadway Car Last Week.

A young man whose good qualities were  
partially obscured by recent indulgence in  
wine was riding north on a Broadway  
car one evening last week and when  
the conductor came in for his fare he  
pulled a handful of coin from a pocket.  
In the lot he detected a five-dollar gold  
piece.

To be sure that he would not inadver-  
tently pass out the five for a nickel he  
resolved to transfer it to another pocket,  
but temporarily laid it on the window sill.  
While he continued an examination of his  
fractional currency. A sudden lurch of the  
car as it swung around a curve caused the  
gold coin to fall into the open space in  
which the window is stored when down.

In vain did a boy with a thin arm attempt  
to recover the coin. At last the conductor  
came to the rescue and told me that gum,  
Maggie," he said, familiarly to a young  
woman, who, in a corner seat, was masti-  
cating tooth fruit.

Maggie took the gum out rather reluc-  
tantly. The conductor then took the case from  
the hands of the astonished chappie, stuck  
the gum to the ferrule, and with the re-  
mark, "It's easy when you know how,"  
inserted the cane into the slot, and a mo-  
ment later brought the shiner to the  
surface.



WHAT ARE THE LEAST NUMBER OF MOVES IN WHICH YOU CAN  
GET BROOKLYN INSIDE OF NEW YORK?  
MOVING THE LETTERS OF "BROOKLYN" ONTO VACANT SPACES.  
THEY MUST FINISH INSIDE IN THE SAME RELATIVE POSITION  
AS THEY NOW HOLD OUTSIDE. "NEW YORK" CANNOT BE  
MOVED OR JUMPED OVER.

A "GREATER NEW YORK" PUZZLE.

THE TRAMP OF  
THE BIRD RACE.

The Idle, Immoral Cowbird Ex-  
posed by the Smithsonian  
Institution.

The Female Lays Her Eggs in Other  
Birds' Nests and Breaks Their  
Own Eggs.

SHE AVOIDS THE CARE OF MATERNITY.

The Young Cowbird Is Reared by Foster  
Parents, Whose Lawful Offspring  
Usually Starve—Finally He  
Joins His Own.

The cowbird has just been exposed and  
held up to the scorn and reproach  
of all self-respecting men, beasts and birds  
by Major Charles Bendire in a paper pub-  
lished by the Smithsonian Institution.

This bird is the tramp of the feathered  
race. He exists by the industry of others,  
and invades and desecrates their homes.  
He is idle, shiftless and generally disrepu-  
table. Moreover, he leads a life of the  
most flagrant immorality, which can be  
said of few birds. Like the true tramp,  
he is a member of a family found only  
on the American continent.

It is certain that the cowbird is a very  
bad egg, but for all that one cannot fail  
to be tickled by some of his ways, as one  
is by a certain type of tramp. It is dull  
to read that when a female cowbird de-  
posits an egg in the nest of a bird of an  
other family she kicks holes in the eggs  
of the owner of the nest in order that her  
own offspring may have more food. The  
cowbirds, it must be admitted, seem to  
enjoy their life of idleness and immor-  
ality.

There are three species of cowbirds in  
the United States, and all have the habit  
of laying their eggs in the nests of other  
birds and letting them perform the duties  
of hatching, raising and feeding the young.  
The cuckoo has been known to do the  
same thing, but does not, like the cowbird,  
with unvarying regularity avoid the duties  
of maternity.

As far as is known, these birds are the  
only ones the process of procreation is  
to say, the possession of several hus-  
bands by one wife. They are not even  
faithful in this degrading relation.

One of the most numerous species of the  
cowbird is known scientifically as molothrus  
ater. Its head, neck and chest are  
brownish, and the rest of the plumage is  
glossy black. It is variously called by the  
people cow blackbird, shiny eye, lazy  
bird, clodhopper and buffalo bird. It is  
found in many parts of the United States,  
but chiefly on the upper Mississippi. In  
the prairie States the cowbirds may be  
frequently seen standing on the backs of  
cattle, relieving them of insects.

When the nesting season approaches the  
males become very demonstrative in their  
actions toward the females, but do not  
appear to mind the attentions paid by  
other males to the same female, as other  
birds usually do, and rarely fight for her  
possession. From love as they are, they  
do not object to such trifles. The flocks  
usually contain several more males than  
females. They are entirely devoid of con-  
jugal affection.

The cowbird is very sociable, and not  
only forms large flocks of its own species,  
but associates with other birds and steals  
their food.

The female lays from ten to twelve eggs  
in a season, and several days elapse be-  
tween the laying of each egg. She does not  
build a nest, but deposits her eggs in the nest  
of another bird, usually of the same species,  
but half of them are lost, some being mis-  
laid and others left in the nests of birds  
who have sense enough not to hatch  
strange eggs.

When the cowbird is ready to lay she  
excuses herself from her courting com-  
pany of friends for a few hours, and goes  
in search of a suitable nest. She usually  
selects one belonging to a bird of a  
smaller species than herself. She does not  
forcibly drive the owner from the nest,  
but watches her opportunity to drop her  
egg in it when it is unguarded.

From one to seven of these intrusive  
eggs have been found in a nest. All are  
not laid by the same cowbird. It is com-  
mon to find that eggs of the species imposed  
upon have been thrown out of the nest by  
the cowbird, while others are punctured by  
her. "There is no doubt," says Major  
Bendire, "that the cowbird throws the  
rightful owners' eggs out of the nest pur-  
posely to enhance the chances of its off-  
spring coming to maturity."

A naturalist recounts that he placed a  
fresh egg of a cowbird in the nest of a  
chipping sparrow containing two of the  
latter's eggs that had an advance of one  
and a half days' incubation over the nest.  
In ten days the young cowbird emerged  
large and vigorous. A day later a little  
sparrow came forth from his delicate shell,  
but much smaller than the cowbird, ex-  
hibiting strength than his foster-brother. The other  
sparrow eggs failed to hatch.

The daily increase in size of the cow-  
bird raised a question in the mind of the  
naturalist. One day a member of a re-  
fined and well-conducted bird family, he  
leaves the nest without computation to  
join the society of birds in the Argentine  
Republic, where the cowbirds are very  
common, have devised a way of getting  
rid of the parasitic eggs. They build a  
door over them and proceed to lay their  
own eggs on this.

It seems high time that the orioles and  
other respectable birds of the United  
States should take steps to put an end to  
an iniquitous imposition.

PRAIRIE SCHOONERS EXIST  
One Made Its Appearance in Indiana the  
Other Day, Containing a Family of  
Emigrants from Oklahoma.

Many people suppose that the "prairie  
schooner" sailed into history about the  
time of the rush to California, and that  
the railroads have driven wagons out of  
existence so far as long overland journeys  
are concerned. That is quite a mistake,  
as many of the settlers in the far West  
can tell. Only a day or two ago a prairie  
schooner containing a man and his wife  
and drawn by a pair of travel-worn horses  
passed through Richmond, Ind., on the way  
from Oklahoma City to Newark, O. The  
travelers carried a brood of useful, melonous  
or beautiful birds is sacrificed. The orioles  
are especially victims of the cowbird.  
Several species of birds in the Argentine  
Republic, where the cowbirds are very  
common, have devised a way of getting  
rid of the parasitic eggs. They build a  
door over them and proceed to lay their  
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